

BEFORE
THE PUBLIC SERVICE COMMISSION OF
SOUTH CAROLINA

DOCKET NO. 2015-103-E

June 29, 2015

IN RE:)	
)	
Petition of South Carolina Electric & Gas)	
Company for Updates and Revisions to)	
Schedules Related to the Construction of a)	SETTLEMENT
Nuclear Base Load Generation Facility at)	AGREEMENT
Jenkinsville, South Carolina)	
)	

This Settlement Agreement (“Settlement Agreement”) is made by and among the South Carolina Office of Regulatory Staff (“ORS”); South Carolina Energy Users Committee (“SCEUC”); and South Carolina Electric & Gas Company (“SCE&G” or the “Company”) (collectively referred to as the “Parties” or sometimes individually as a “Party”).

WHEREAS, on March 12, 2015, SCE&G filed a petition with the Public Service Commission of South Carolina (“Commission”) requesting an order from the Commission approving an updated capital cost schedule and updated construction schedule for the construction of two 1,117 net megawatt nuclear units (the “Units”) to be located at the V.C. Summer Nuclear Station near Jenkinsville, South Carolina (the “Petition”);

WHEREAS, SCE&G filed its Petition pursuant to S.C. Code Ann. § 58-33-270(E) (Supp. 2014) of the Base Load Review Act (“BLRA”), which states:

(E) As circumstances warrant, the utility may petition the commission, with notice to the Office of Regulatory Staff, for an order modifying any of the schedules, estimates, findings, class allocation factors, rate designs, or conditions that form part of any base load review order issued under this section. The commission

shall grant the relief requested if, after a hearing, the commission finds:

- (1) as to the changes in the schedules, estimates, findings, or conditions, that the evidence of record justifies a finding that the changes are not the result of imprudence on the part of the utility; and
- (2) as to the changes in the class allocation factors or rate designs, that the evidence of record indicates the proposed class allocation factors or rate designs are just and reasonable.

WHEREAS, the Commission established Docket No. 2015-103-E in which to hear the Company's request set forth in the Petition;

WHEREAS, among other statements, SCE&G states in its Petition that circumstances warrant modifying the schedules approved in the most recent Base Load Review order because in 2014 Westinghouse Electric Company ("WEC") and Chicago Bridge & Iron ("CB&I", and together with WEC, the "Consortium") reevaluated the engineering, procurement, and construction ("EPC") activities necessary to complete the Units and provided SCE&G a revised, fully-integrated construction schedule (the "Revised Fully-Integrated Construction Schedule") with an associated cash flow forecast for completion of the project (the "Revised Cash Flow Forecast");

WHEREAS, the Revised Fully-Integrated Construction Schedule reflects new substantial completion dates for Units 2 and 3 of June 19, 2019, and June 16, 2020, respectively ("Substantial Completion Dates");

WHEREAS, the updated capital cost schedule associated with the revised Substantial Completion Dates includes approximately \$698 million in additional capital costs of which \$245 million represents Owner's costs and \$453 million represents EPC Contract costs;

WHEREAS, SCE&G has asserted, among other things, that it is not responsible for costs related to the delay in the project and that the Consortium is liable for these costs as a result of its

failure to meet its responsibilities under the EPC Contract and otherwise. Nevertheless, it is clear that it will take the Consortium until June 19, 2019, and June 16, 2020, to complete Units 2 and 3, respectively, and that the additional costs reflected in the updated capital cost schedule will be incurred and are reasonable and necessary in completing the work on the Units;¹

WHEREAS, the Consortium has not accepted responsibility for SCE&G's assertions;

WHEREAS, as set forth in the prefiled direct testimony of Stephen A. Byrne, SCE&G and the Consortium currently are engaged in active negotiations concerning the responsibility for the increased cost resulting from the delay and other disputed issues;

WHEREAS, after careful review conducted over many weeks and the performance of careful analyses using teams of experts in accounting, finance, and construction, SCE&G determined that circumstances warranted petitioning the Commission, under the BLRA, to update the approved construction schedule and the approved capital cost schedule to reflect reasonable and prudent changes to these schedules based upon the information currently available to SCE&G;²

WHEREAS, based on its review and analyses and as stated in its Petition, SCE&G has modified, and submitted for consideration and approval of the Commission the BLRA Milestone Construction Schedule, as reflected in Settlement Exhibit 1 attached hereto and incorporated herein by this reference, to align remaining BLRA Milestones as approved in Order No. 2012-884 to the new Substantial Completion Dates and to the current construction and fabrication schedules;

¹ The Parties' agreement that these additional capital costs are "reasonable and necessary," in the context of the BLRA, is independent of the issue of whether SCE&G or the Consortium is ultimately responsible for the delay and associated costs, which is an issue that is governed by the EPC Agreement.

² In presenting the modified and updated construction and capital cost schedules as reasonable and prudent for approval under the BLRA, SCE&G does not waive, but specifically reserves, its rights against the Consortium under the EPC Contract and otherwise to dispute who is liable for the increased cost of the project, to recover damages for the delay in the Substantial Completion Dates of the Units, to continue to negotiate with the Consortium seeking to achieve fair resolutions of these disputes, and for other appropriate relief.

WHEREAS, based on its review and analyses and as stated in its Petition, SCE&G has also modified, and submitted for consideration and approval of the Commission, the capital cost schedule for completion of the Units, as reflected in Settlement Exhibit 2, attached hereto and incorporated herein by this reference, to reflect (a) the effect of the new Substantial Completion Dates on Owner's costs and EPC Contract costs, and (b) other changes in costs that have been identified since Order Exhibit No. 1 was approved by the Commission in Order No. 2012-884;

WHEREAS, S.C. Code Ann. § 58-33-277(B) (Supp. 2014) of the BLRA provides that
ORS:

shall conduct on-going monitoring of the construction of the plant and expenditure of capital through review and audit of the quarterly reports under this article, and shall have the right to inspect the books and records regarding the plant and the physical progress of construction upon reasonable notice to the utility.

WHEREAS, in connection with this case as well as since the inception of this project, ORS has exercised its rights and fulfilled its responsibilities under S.C. Code Ann. § 58-33-277 (Supp. 2014) to monitor the status of the project, by, among other things, routinely and regularly observing the progress of the plant construction and submodule production, requesting and reviewing substantial amounts of relevant financial data from the Company, auditing the quarterly reports submitted by the Company pursuant to the BLRA, inspecting the books and records of the Company regarding the plant and physical progress of construction, and reviewing in detail SCE&G's request to modify the Units' construction schedule and capital cost schedule in the above-captioned matter;

WHEREAS, SCE&G has provided information deemed satisfactory by ORS and SCEUC to support the relief requested in the Petition that the delay in the Substantial Completion Dates and other changes in construction, construction oversight, and operational readiness requirements result in necessary and reasonable modifications to the capital cost and BLRA Milestone

Construction schedule under the terms of the BLRA and are not the result of imprudence on the part of the Company;

WHEREAS, the Commission allowed for public comment and intervention in the above-captioned docket;

WHEREAS, ORS is automatically a party of record to proceeding pursuant to S.C. Code Ann. § 58-4-10(B) (Supp. 2014);

WHEREAS, SCEUC made a timely request to intervene in this docket;

WHEREAS, the Parties have varying positions regarding the issues in this case;

WHEREAS, the Parties to this Settlement Agreement have engaged in discussions to determine if a Settlement Agreement would be in their best interest; and

WHEREAS, following these discussions the Parties have each determined that their interest and the public interest would be best served by agreeing to settle the issues in the above-captioned case under the terms and conditions set forth in this Settlement Agreement;

NOW, THEREFORE, the Parties hereby stipulate and agree to the following terms:

A. STIPULATION OF SETTLEMENT AGREEMENT, TESTIMONY AND WAIVER OF CROSS-EXAMINATION

1. The Settling Parties agree to stipulate into the record before the Commission this Settlement Agreement.

2. The Settling Parties agree to stipulate into the record before the Commission the prefiled testimony and exhibits (collectively “Stipulated Testimony”) of the following witnesses without objection, change, amendment, or cross-examination with the exception of changes comparable to that which would be presented via an errata sheet or through a witness noting a correction consistent with this Settlement Agreement. The Settling Parties agree that no other evidence will be offered in the proceeding by them other than the Stipulated Testimony and exhibits and this Settlement Agreement unless additional evidence is necessary to support the

Settlement Agreement. The Settling Parties also reserve the right to engage in redirect examination of witnesses as necessary to respond to issues raised by the examination of their witnesses, if any, by non-Parties or by testimony filed by non-Parties.

SCE&G witnesses

1. Kevin B. Marsh
2. Stephen A. Byrne
3. Ronald A. Jones
4. Carlette L. Walker
5. Joseph M. Lynch

ORS witness:

1. M. Anthony James

If SCE&G determines that rebuttal testimony should be filed in response to any testimony filed by any Intervenor that is not a signatory to this Settlement Agreement, then the Parties hereto agree that any such testimony likewise would be stipulated into the record before the Commission under this Settlement Agreement without objection, change, amendment, or cross-examination with the exception of changes comparable to that which would be presented via an errata sheet or through a witness noting a correction consistent with this Settlement Agreement.

B. SETTLEMENT TERMS

3. SCE&G has identified and itemized approximately \$698 million in additional capital costs that it deems as reasonable and necessary for completion of the construction of the Units through the delayed Substantial Completion Dates. These additional capital costs have been assigned to specific cost categories and are reflected and included in Settlement Exhibit 2.

4. These modifications increase the capital cost for the Units in 2007 dollars from the approximately \$4.5 billion, approved by the Commission in Order No. 2012-884, Order Exhibit No. 1 to approximately \$5.2 billion. Further, along with changes in escalation rates, these

modifications increase the gross construction cost of the Units in current dollars from the approximately \$5.7 billion approved by the Commission in Order No. 2012-884, Order Exhibit No. 1 to approximately \$6.8 billion as reflected in Settlement Exhibit 2.

5. The Parties agree that the modified construction schedule and capital cost schedule are not the result of imprudence by SCE&G and are fully consistent with the requirements of the BLRA.

6. The Parties agree that the updated construction schedule, as reflected in the updated BLRA Milestone Construction schedule attached hereto as Settlement Exhibit 1, should be approved by the Commission as the new construction schedule.

7. The Parties also agree that the restated and updated capital cost schedule, as reflected in Settlement Exhibit 2 attached hereto, should be approved by the Commission as the new construction expenditure schedule for completion of the Units. Specifically, Settlement Exhibit 2 should replace and supersede Order Exhibit No. 1 of Order No. 2012-884.

8. By Commission Order No. 2009-104(A), the Commission established a return on equity of eleven percent (11%), which is applicable for revised rates filings under the Base Load Review Act. This return on equity has been consistently and lawfully used for each revised rates filing advanced by the Company since issuance of the initial Base Load Review order in 2009. However, as an integral part of this Settlement Agreement and for Base Load Review Act purposes only, beginning with any revised rates filing made on or after January 1, 2016, and prospectively thereafter until such time as the Units are completed, SCE&G agrees to develop and calculate its revised rates filings using ten and one-half percent (10.5%) as the return on common equity rather than the approved return on common equity of eleven percent (11%) subject to Paragraph 14 hereof.³

³ Any revised rates placed into effect prior to January 1, 2016, shall not be affected by this Settlement Agreement, and the Parties specifically agree that Paragraph 8 of the Settlement Agreement is not intended to

9. As set forth in S.C. Code Ann. § 58-33-277 (Supp. 2014) of the BLRA, ORS will continue to monitor the progress of the Units' construction, including the ongoing status of negotiations between SCE&G and the Consortium of disputes related to the delayed Substantial Completion Dates and costs associated therewith.

10. The Parties agree that the terms of this Settlement Agreement are reasonable, in the public interest and in accordance with law and regulatory policy.

11. ORS is charged with the duty to represent the public interest of South Carolina pursuant to S.C. Code Ann. § 58-4-10(B) (Supp. 2014). S.C. Code Ann. § 58-4-10(B)(1) through (3) reads in part as follows:

“...‘public interest’ means a balancing of the following:

- (1) Concerns of the using and consuming public with respect to public utility services, regardless of the class of customer;
- (2) Economic development and job attraction and retention in South Carolina; and
- (3) Preservation of the financial integrity of the State's public utilities and continued investment in and maintenance of utility facilities so as to provide reliable and high quality utility services.”

12. The Parties agree to cooperate in good faith with one another in recommending to the Commission that this Settlement Agreement be accepted and approved by the Commission as a fair, reasonable and full resolution of all issues in the above-captioned proceeding, and shall neither take any position contrary to the good faith duty agreed to herein nor encourage or aid any other Intervenors to take a position contrary to the terms of this Settlement Agreement. The Parties agree to use reasonable efforts to defend and support any Commission order with no

require SCE&G to provide any offset, credit, refund, reimbursement, or other compensation to customers for rates considered and approved by the Commission and placed into effect prior to January 1, 2016. The reduction in the Company's return on equity shall only be prospectively applied for the purpose of calculating revised rates sought by the Company on and after January 1, 2016, until such time as the Units are completed and for Base Load Review Act purposes only.

other provisions issued approving this Settlement Agreement and the terms and conditions contained herein.

13. The Parties request that the Commission hold a hearing on this Settlement Agreement, pursuant to S.C. Code Ann. § 58-33-270(G) (Supp. 2014), simultaneously with the hearing on the merits of the Petition, which is currently scheduled to begin on July 21, 2015, and request that the Commission adopt this Settlement Agreement as part of its order in this proceeding. In furtherance of this request, the Parties stipulate and agree that the terms of this Settlement Agreement comport with the terms of the BLRA.

14. This Settlement Agreement contains the complete agreement of the Parties. There are no other terms and conditions to which the Parties have agreed. The Parties agree that this Settlement Agreement will not constrain, inhibit or impair their arguments or positions held in future proceedings, nor will this Settlement Agreement, or any of the matters agreed to in it, be used as evidence or precedent in any future proceeding. Any Party may withdraw from the Settlement Agreement without penalty if (i) the Commission does not approve this Settlement Agreement in its entirety or (ii) an appellate court does not affirm in all respects the Commission's order approving this Settlement Agreement in its entirety. If a Party elects to withdraw from the Settlement Agreement pursuant to this paragraph, then the provisions of this Settlement Agreement will no longer be binding upon the Parties.

15. This Settlement Agreement shall be effective upon execution by the Parties and shall be interpreted according to South Carolina law. The above terms and conditions fully represent the agreement of the Parties hereto. Therefore, each Party acknowledges its consent and agreement to the terms and conditions of this Settlement Agreement by affixing his or her signature or authorizing its counsel to affix his or her signature to this document where indicated below. Counsel's signature represents his or her representation that his or her client has authorized the execution of the Settlement Agreement. Facsimile signatures and e-mail

signatures shall be as effective as original signatures to bind any party. This document may be signed in counterparts, with the various signature pages combined with the body of the document constituting an original and provable copy of this Settlement Agreement.

[Signatures on the following pages.]

WE AGREE:

Representing and binding the South Carolina Office of Regulatory Staff

Shannon B. Hudson

Shannon Bowyer Hudson, Esquire

Jeffrey M. Nelson, Esquire

South Carolina Office of Regulatory Staff

1401 Main Street, Suite 900

Columbia, SC 29201

Phone: (803) 737-0889

Fax: (803) 737-0895

Email: shudson@regstaff.sc.gov

jnelson@regstaff.sc.gov

WE AGREE:


Representing and binding South Carolina Energy Users Committee



Scott Elliott, Esquire
Elliott & Elliott, P.A.
1508 Lady Street
Columbia, SC 29201
Phone: (803) 771-0555
Fax: (803) 771-8010
Email: sellott@elliottlaw.us

WE AGREE:

Representing and binding South Carolina Electric & Gas Company



K. Chad Burgess, Esquire
Matthew W. Gissendanner, Esquire
South Carolina Electric & Gas Company
Mail Code C222
220 Operation Way
Cayce, SC 29033
Phone: (803) 217-8141
Fax: (803) 217-7931
Email: chad.burgess@scana.com
matthew.gissendanner@scana.com

Belton T. Zeigler, Esquire
Womble Carlyle Sandridge & Rice, LLP
1727 Hampton Street
Columbia, SC 29201
Phone: (803) 454-6504
Fax: (803) 454-6509
Email: bzeigler@popezeigler.com

Mitchell Willoughby, Esquire
Willoughby & Hoefer, P.A.
Post Office Box 8416
930 Richland Street
Columbia, SC 29202-8416
Phone: (803) 252-3300
Fax: (803) 256-8062
Email: mwilloughby@willoughbyhoefer.com

BLRA Milestones
VC Summer Units 2 and 3

Tracking ID	Order No. 2012-884 Description	Order No. 2012-884 Date	Revised Completion Date	Unit
1	Approve Engineering Procurement and Construction Agreement	Complete	Complete	
2	Issue POs to nuclear component fabricators for Units 2 & 3 Containment Vessels	Complete	Complete	
3	Contractor Issue PO to Passive Residual Heat Removal Heat Exchanger Fabricator - First Payment - Unit 2	Complete	Complete	
4	Contractor Issue PO to Accumulator Tank Fabricator - Unit 2	Complete	Complete	
5	Contractor Issue PO to Core Makeup Tank Fabricator - Units 2 & 3	Complete	Complete	
6	Contractor Issue PO to Squib Valve Fabricator - Units 2 & 3	Complete	Complete	
7	Contractor Issue PO to Steam Generator Fabricator - Units 2 & 3	Complete	Complete	
8	Contractor Issue Long Lead Material PO to Reactor Coolant Pump Fabricator - Units 2 & 3	Complete	Complete	
9	Contractor Issue PO to Pressurizer Fabricator - Units 2 & 3	Complete	Complete	
10	Contractor Issue PO to Reactor Coolant Loop Pipe Fabricator - First Payment - Units 2 & 3	Complete	Complete	
11	Reactor Vessel Internals - Issue Long Lead Material PO to Fabricator - Units 2 & 3	Complete	Complete	
12	Contractor Issue Long Lead Material PO to Reactor Vessel Fabricator - Units 2 & 3	Complete	Complete	
13	Control Rod Drive Mechanism Issue PO for Long Lead Material to Fabricator - Units 2 & 3 - first payment	Complete	Complete	
14	Control Rod Drive Mechanism Issue PO for Long Lead Material to Fabricator - Units 2 & 3 - second payment	Complete	Complete	
15	Issue POs to nuclear component fabricators for Nuclear Island structural CAZO Modules	Complete	Complete	
16	Start Site Specific and balance of plant detailed design	Complete	Complete	
17	Instrumentation & Control Simulator - Contractor Place Notice to Proceed - Units 2 & 3	Complete	Complete	
18	Steam Generator - Issue Final PO to Fabricator for Units 2 & 3	Complete	Complete	
19	Reactor Vessel Internals - Contractor Issue PO for Long Lead Material (Heavy Plate and Heavy Forgings) to Fabricator - Units 2 & 3	Complete	Complete	
20	Contractor Issue Final PO to Reactor Vessel Fabricator - Units 2 & 3	Complete	Complete	
21	Variable Frequency Drive Fabricator Issue Transformer PO - Units 2 & 3	Complete	Complete	
22	Start clearing, grubbing and grading	Complete	Complete	
23	Core Makeup Tank Fabricator Issue Long Lead Material PO - Units 2 & 3	Complete	Complete	
24	Accumulator Tank Fabricator Issue Long Lead Material PO - Units 2 & 3	Complete	Complete	
25	Pressurizer Fabricator Issue Long Lead Material PO - Units 2 & 3	Complete	Complete	
26	Reactor Coolant Loop Pipe - Contractor Issue PO to Fabricator - Second Payment - Units 2 & 3	Complete	Complete	
27	Integrated Head Package - Issue PO to Fabricator - Units 2 and 3 - second payment	Complete	Complete	
28	Control Rod Drive Mechanisms - Contractor Issue PO for Long Lead Material to Fabricator - Units 2 & 3	Complete	Complete	
29	Contractor Issue PO to Passive Residual Heat Removal Heat Exchanger Fabricator - Second Payment - Units 2 & 3	Complete	Complete	
30	Start Parr Road Intersection work	Complete	Complete	
31	Reactor Coolant Pump - Issue Final PO to Fabricator - Units 2 & 3	Complete	Complete	
32	Integrated Heat Packages Fabricator Issue Long Lead Material PO - Units 2 & 3	Complete	Complete	
33	Design Finalization Payment 3	Complete	Complete	
34	Start site development	Complete	Complete	
35	Contractor Issue PO to Turbine Generator Fabricator - Units 2 & 3	Complete	Complete	
36	Contractor Issue PO to Main Transformers Fabricator - Units 2 & 3	Complete	Complete	
37	Core Makeup Tank Fabricator Notice to Contractor Receipt of Long Lead Material - Units 2 & 3	Complete	Complete	
38	Design Finalization Payment 4	Complete	Complete	
39	Turbine Generator Fabricator Issue PO for Condenser Material - Unit 2	Complete	Complete	
40	Reactor Coolant Pump Fabricator Issue Long Lead Material Lot 2 - Units 2 & 3	Complete	Complete	
41	Passive Residual Heat Removal Heat Exchanger Fabricator Receipt of Long Lead Material - Units 2 & 3	Complete	Complete	
42	Design Finalization Payment 5	Complete	Complete	
43	Start erection of construction buildings; to include craft facilities for personnel, tools, equipment; first aid facilities; field offices for site management and support personnel; temporary warehouses; and construction hiring office	Complete	Complete	
44	Reactor Vessel Fabricator Notice to Contractor of Receipt of Flange Nozzle Shell Forging - Unit 2	Complete	Complete	
45	Design Finalization Payment 6	Complete	Complete	
46	Instrumentation and Control Simulator - Contractor Issue PO to Subcontractor for Radiation Monitor System - Units 2 & 3	Complete	Complete	
47	Reactor Vessel Internals - Fabricator Start Fit and Welding of Core Shroud Assembly - Unit 2	Complete	Complete	
48	Turbine Generator Fabricator Issue PO for Moisture Separator Reheater/Feedwater Heater Material - Unit 2	Complete	Complete	
49	Reactor Coolant Loop Pipe Fabricator Acceptance of Raw Material - Unit 2	Complete	Complete	

South Carolina Electric & Gas Company

BLRA Milestones
VC Summer Units 2 and 3

Tracking ID	Order No. 2012-984 Description	Order No. 2012-984 Date	Revised Completion Date	Unit
50	Reactor Vessel Internals - Fabricator Start Weld Neutron Shield Spacer Pads to Assembly - Unit 2	Complete	Complete	
51	Control Rod Drive Mechanisms - Fabricator to Start Procurement of Long Lead Material - Unit 2	Complete	Complete	
52	Contractor Notified that Pressurizer Fabricator Performed Cladding on Bottom Head - Unit 2	Complete	Complete	
53	Start excavation and foundation work for the standard plant for Unit 2	Complete	Complete	
54	Steam Generator Fabricator Notice to Contractor of Receipt of 2nd Steam Generator Tubesheet Forging - Unit 2	Complete	Complete	
55	Reactor Vessel Fabricator Notice to Contractor of Outlet Nozzle Welding to Flange Nozzle Shell Completion - Unit 2	Complete	Complete	
56	Turbine Generator Fabricator Notice to Contractor of Satisfactory Completion of Hydrotest - Unit 2	Complete	Complete	
57	Complete preparations for receiving the first module on site for Unit 2	Complete	Complete	
58	Steam Generator Fabricator Notice to Contractor of Receipt of 1st Steam Generator Transition Cone Forging - Unit 2	Complete	Complete	
59	Reactor Coolant Pump Fabricator Notice to Contractor of Manufacturing of Casing Completion - Unit 2	Complete	Complete	
60	Reactor Coolant Loop Pipe Fabricator Notice to Contractor of Machining, Heat Treating & Non-Destructive Testing Completion - Unit 2	Complete	Complete	
61	Core Makeup Tank Fabricator Notice to Contractor of Satisfactory Completion of Hydrotest - Unit 2	Complete	Complete	
62	Polar Crane Fabricator Issue PO for Main Hoist Drum and Wire Rope - Units 2 & 3	Complete	Complete	
63	Control Rod Drive Mechanisms - Fabricator to Start Procurement of Long Lead Material - Unit 3	Complete	Complete	
64	Turbine Generator Fabricator Notice to Contractor of Condenser Ready to Ship - Unit 2	Complete	Complete	
65	Start placement of mud mat for Unit 2	Complete	Complete	
66	Steam Generator Fabricator Notice to Contractor of Receipt of 1st Steam Generator Tubing - Unit 2	Complete	Complete	
67	Pressurizer Fabricator Notice to Contractor of Welding of Upper and Intermediate Shells Completion - Unit 2	Complete	Complete	
68	Reactor Vessel Fabricator Notice to Contractor of Closure Head Cladding Completion - Unit 3	Complete	Complete	
69	Begin Unit 2 first nuclear concrete placement	Complete	Complete	
70	Reactor Coolant Pump Fabricator Notice to Contractor of Stator Core Completion - Unit 2	Complete	Complete	
71	Fabricator Start Fit and Welding of Core Shroud Assembly - Unit 2	Complete	Complete	
72	Steam Generator Fabricator Notice to Contractor of Completion of 1st Steam Generator Tubing Installation - Unit 2	Complete	Complete	
73	Reactor Coolant Loop Pipe - Shipment of Equipment to Site - Unit 2	Complete	Complete	
74	Control Rod Drive Mechanism - Ship Remainder of Equipment (Latch Assembly & Rod Travel Housing) to Head Supplier - Unit 2	Complete	Complete	
75	Pressurizer Fabricator Notice to Contractor of Welding of Lower Shell to Bottom Head Completion - Unit 2	Complete	Complete	
76	Steam Generator Fabricator Notice to Contractor of Completion of 2nd Steam Generator Tubing Installation - Unit 2	Complete	Complete	
77	Design Finalization Payment 14	Complete	Complete	
78	Set module CA04 for Unit 2	Complete	Complete	
79	Passive Residual Heat Removal Heat Exchanger Fabricator Notice to Contractor of Final Post Weld Heat Treatment - Unit 2	Complete	Complete	
80	Passive Residual Heat Removal Heat Exchanger Fabricator Notice to Contractor of Completion of Tubing - Unit 2	Complete	Complete	
81	Polar Crane Fabricator Notice to Contractor of Girder Fabrication Completion - Unit 2	Complete	Complete	
82	Turbine Generator Fabricator Notice to Contractor of Condenser Ready to Ship - Unit 3	Complete	Complete	
83	Set Containment Vessel Ring #1 for Unit 2	Complete	Complete	
84	Reactor Coolant Pump Fabricator Delivery of Casings to Port of Export - Unit 2	Complete	Complete	
85	Reactor Coolant Pump Fabricator Notice to Contractor of Stator Core Completion - Unit 3	Complete	Complete	
86	Reactor Vessel Fabricator Notice to Contractor of Receipt of Core Shell Forging - Unit 3	Complete	Complete	
87	Contractor Notified that Pressurizer Fabricator Performed Cladding on Bottom Head - Unit 3	Complete	Complete	
88	Set Nuclear Island structural module CA03 for Unit 2	Complete	Complete	
89	Squib Valve Fabricator Notice to Contractor of Completion of Assembly and Test for Squib Valve Hardware - Unit 2	6/26/2013	12/28/2015	Unit 2
90	Accumulator Tank Fabricator Notice to Contractor of Satisfactory Completion of Hydrotest - Unit 3	Complete	Complete	
91	Polar Crane Fabricator Notice to Contractor of Electric Panel Assembly Completion - Unit 2	Complete	Complete	
92	Start containment large bore pipe supports for Unit 2	Complete	Complete	
93	Integrated Head Package - Shipment of Equipment to Site - Unit 2	Complete	Complete	
94	Reactor Coolant Pump Fabricator Notice to Contractor of Final Stator Assembly Completion - Unit 2	Complete	Complete	
95	Steam Generator Fabricator Notice to Contractor of Completion of 2nd Steam Generator Tubing Installation - Unit 3	Complete	Complete	
96	Steam Generator Fabricator Notice to Contractor of Satisfactory Completion of 1st Steam Generator Hydrotest - Unit 2	Complete	Complete	
97	Start concrete fill of Nuclear Island structural modules CA01 and CA02 for Unit 2	Complete	Complete	
98	Passive Residual Heat Removal Heat Exchanger - Delivery of Equipment to Port of Entry - Unit 2	4/3/2014	7/18/2016	Unit 2
99	Refueling Machine Fabricator Notice to Contractor of Satisfactory Completion of Factory Acceptance Test - Unit 2	Complete	Complete	

South Carolina Electric & Gas Company

Settlement Exhibit 1
Exhibit No. __ (SAB-2)

BLRA Milestones
VC Summer Units 2 and 3

Tracking ID	Order No. 2012-884 Description	Order No. 2012-884 Date	Revised Completion Date	Unit
100	Deliver Reactor Vessel Internals to Port of Export - Unit 2	1/31/2014	7/30/2015	Unit 2
101	Set Unit 2 Containment Vessel #3	4/24/2014	8/23/2016	Unit 2
102	Steam Generator - Contractor Acceptance of Equipment at Port of Entry - Unit 2	Complete	Complete	Unit 2
103	Turbine Generator Fabricator Notice to Contractor Turbine Generator Ready to Ship - Unit 2	Complete	Complete	Unit 2
104	Pressurizer Fabricator Notice to Contractor of Satisfactory Completion of Hydrotest - Unit 3	3/31/2014	3/28/2015	Unit 3
105	Polar Crane - Shipment of Equipment to Site - Unit 2	1/31/2014	12/31/2015	Unit 2
106	Receive Unit 2 Reactor Vessel on site from fabricator	Complete	Complete	Unit 2
107	Set Unit 2 Reactor Vessel	6/23/2014	8/9/2016	Unit 2
108	Steam Generator Fabricator Notice to Contractor of Completion of 2nd Channel Head to Tubesheet Assembly Welding - Unit 3	12/31/2013	3/30/2015	Unit 3
109	Reactor Coolant Pump Fabricator Notice to Contractor of Final Stator Assembly Completion - Unit 3	8/31/2014	10/30/2015	Unit 3
110	Reactor Coolant Pump - Shipment of Equipment to Site (2 Reactor Coolant Pumps) - Unit 2	10/31/2013	5/30/2016	Unit 2
111	Place first nuclear concrete for Unit 3	Complete	Complete	Unit 2
112	Set Unit 2 Steam Generator	10/23/2014	10/10/2016	Unit 2
113	Main Transformers Ready to Ship - Unit 2	Complete	Complete	Unit 2
114	Complete Unit 3 Steam Generator Hydrotest at fabricator	2/28/2014	7/30/2015	Unit 3
115	Set Unit 2 Containment Vessel Bottom Head on basemat legs	Complete	Complete	Unit 3
116	Set Unit 2 Pressurizer Vessel	Complete	Complete	Unit 3
117	Reactor Coolant Pump Fabricator Notice to Contractor of Satisfactory Completion of Factory Acceptance Test - Unit 3	5/16/2014	8/23/2016	Unit 2
118	Deliver Reactor Vessel Internals to Port of Export - Unit 3	2/28/2015	1/31/2017	Unit 3
119	Main Transformers Fabricator Issue PO for Material - Unit 3	6/30/2015	12/31/2016	Unit 3
120	Complete welding of Unit 2 Passive Residual Heat Removal System piping	Complete	Complete	Unit 3
121	Steam Generator - Contractor Acceptance of Equipment at Port of Entry - Unit 3	2/5/2015	1/16/2017	Unit 2
122	Refueling Machine - Shipment of Equipment to Site - Unit 3	4/30/2015	1/30/2016	Unit 3
123	Set Unit 2 Polar Crane	2/28/2015	3/27/2016	Unit 3
124	Reactor Coolant Pumps - Shipment of Equipment to Site - Unit 3	1/9/2015	12/19/2016	Unit 2
125	Main Transformers Ready to Ship - Unit 3	6/30/2015	4/30/2017	Unit 3
126	Spent Fuel Storage Rack - Shipment of Last Rack Module - Unit 3	7/31/2015	12/30/2015	Unit 3
127	Start electrical cable pulling in Unit 2 Auxiliary Building	7/31/2014	5/31/2015	Unit 3
128	Complete Unit 2 Reactor Coolant System cold hydro	8/14/2013	11/29/2016	Unit 2
129	Activate class 1E DC power in Unit 2 Auxiliary Building	1/22/2016	2/19/2018	Unit 2
130	Complete Unit 2 hot functional test	3/15/2015	6/22/2017	Unit 2
131	Install Unit 3 ring 3 for containment vessel	5/3/2016	5/23/2018	Unit 2
132	Load Unit 2 nuclear fuel	8/25/2015	2/27/2017	Unit 3
133	Unit 2 Substantial Completion	9/15/2016	12/21/2018	Unit 2
134	Set Unit 3 Reactor Vessel	3/15/2017	6/19/2019	Unit 2
135	Set Unit 3 Steam Generator #2	10/22/2015	5/26/2017	Unit 3
136	Set Unit 3 Pressurizer Vessel	2/25/2016	9/22/2017	Unit 3
137	Complete welding of Unit 3 Passive Residual Heat Removal System piping	7/16/2015	11/27/2017	Unit 3
138	Set Unit 3 polar crane	6/16/2016	1/29/2018	Unit 3
139	Start Unit 3 Shield Building roof slab rebar placement	5/9/2016	12/18/2017	Unit 3
140	Start Unit 3 Auxiliary Building electrical cable pulling	5/26/2016	5/11/2018	Unit 3
141	Activate Unit 3 Auxiliary Building class 1E DC power	11/17/2014	6/23/2017	Unit 3
142	Complete Unit 3 Reactor Coolant System cold hydro	5/15/2016	3/13/2018	Unit 3
143	Complete Unit 3 hot functional test	3/22/2017	2/26/2019	Unit 3
144	Complete Unit 3 nuclear fuel load	7/3/2017	5/26/2019	Unit 3
145	Begin Unit 3 full power operation	11/15/2017	12/19/2019	Unit 3
146	Unit 3 Substantial Completion	4/8/2018	5/20/2020	Unit 3
		5/15/2018	6/16/2020	Unit 3

RESTATED and UPDATED CONSTRUCTION EXPENDITURES
(Thousands of \$)

V.C. Summer Units 2 and 3 - Summary of SCE&G Capital Cost Components

**Actual through December 2014* plus
Projected**

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	Actual													
	Projected													
Total														
Plant Cost Categories														
Fixed with No Adjustment	-	26	724	927	11,964	51,677	56,593	47,207	64,576	64,794	30,314	710	-	-
Firm with Fixed Adjustment A	21,723	97,386	319,073	374,810	314,977	488,461	448,947	422,076	742,980	759,311	658,948	389,817	169,840	38,289
Firm with Fixed Adjustment B	-	3,519	20,930	23,741	34,084	74,485	88,622	89,890	196,694	247,926	240,312	151,548	92,670	36,065
Firm with Indexed Adjustment	21,723	100,905	340,003	398,551	349,061	562,946	537,569	511,966	839,674	1,007,237	899,260	541,365	262,510	74,354
Actual Craft Wages														
Non-Labor Costs														
Time & Materials														
Owners Costs														
Transmission Costs														
Total Base Project Costs(2007 \$)	329,512													
Total Project Escalation	5,246,638													
Total Revised Project Cash Flow	1,300,486													
Cumulative Project Cash Flow(Revised)	6,547,124													
AFUDC(Capitalized Interest)	21,723	122,629	462,632	861,183	1,210,244	1,773,190	2,310,759	2,822,725	3,762,398	4,769,635	5,668,895	6,210,260	6,472,770	6,547,124
Gross Construction	279,780	645	3,497	10,564	17,150	18,941	27,722	26,131	30,502	44,426	39,884	30,984	11,529	3,599
Construction Work in Progress	6,826,914	22,368	104,403	350,567	415,701	581,886	565,291	538,097	970,176	1,051,663	939,143	572,349	274,039	77,953
		22,368	126,771	477,338	893,039	1,256,317	1,838,203	2,403,495	3,911,767	4,963,430	5,902,573	6,474,923	6,748,962	6,826,914

*Applicable index escalation rates for 2014 are estimated. Escalation is subject to restatement when actual indices for 2014 are final.

Notes:

Current Period AFUDC rate applied

5.68%

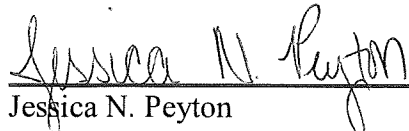
Escalation rates vary from reporting period to reporting period according to the terms of Commission Order 2009-104(A). These projections reflect current escalation rates. Future changes in escalation rates could substantially change these projections. The AFUDC rate applied is the current SCE&G rate. AFUDC rates can vary with changes in market interest rates, SCE&G's embedded cost of capital, capitalization ratios, construction work in process, and SCE&G's short-term debt outstanding.

BEFORE
THE PUBLIC SERVICE COMMISSION
OF SOUTH CAROLINA
DOCKET NO. 2015-103-E

IN RE: Petition of South Carolina Electric & Gas)
 Company for Updates and Revisions to the Capital) **CERTIFICATE**
 Cost Schedule and Schedules Related to the) **OF SERVICE**
 Construction of a Nuclear Base Load Generation)
 Facility at Jenkinsville, South Carolina)

This is to certify that I, Jessica N. Peyton, have this date served one (1) copy of the **SETTLEMENT AGREEMENT** in the above-referenced matter to the person(s) named below by causing said copy to be deposited in the United States Postal Service, first class postage prepaid and affixed thereto, and addressed as shown below:

[PLEASE FIND THE LIST OF ALL PARTIES SERVED ON THE FOLLOWING PAGE]



Jessica N. Peyton

June 29, 2015
Columbia, South Carolina

Representing South Carolina Electric & Gas Company

Belton T. Zeigler, Esquire
Womble Carlyle Sandridge & Rice, LLP
1727 Hampton Street
Columbia, SC 29201

Matthew W. Gissendanner, Esquire
K. Chad Burgess, Esquire
South Carolina Electric & Gas Company
220 Operation Way - MC C222
Cayce, SC 29033-3701

Representing CMC Steel South Carolina

Charles L.A. Terreni, Esquire
Terreni Law Firm, LLC
1508 Lady Street
Columbia, SC 29201

Damon E. Xenopoulos, Esquire
Stone Mattheis Xenopoulos & Brew, PC
1025 Thomas Jefferson Street, NW
8th Floor - West Tower
Washington, DC 20007

Representing Sierra Club

Robert Guild, Esquire
Robert Guild - Attorney at Law
314 Pall Mall Street
Columbia, SC 29201

Representing South Carolina Energy Users Committee

Scott Elliott, Esquire
Elliott & Elliott, P.A.
1508 Lady Street
Columbia, SC 29201

THE OFFICE OF REGULATORY STAFF
SETTLEMENT TESTIMONY & EXHIBIT
OF
M. ANTHONY JAMES, P.E.

JUNE 29, 2015



DOCKET NO 2015-103-E

Summary

**Petition of South Carolina Electric & Gas Company for
Updates and Revisions to the Capital Cost Schedule and
Schedules Related to the Construction of a Nuclear Base
Load Generation Facility at Jenkinsville, South Carolina**

SETTLEMENT TESTIMONY & EXHIBIT**OF****M. ANTHONY JAMES, P.E.****FOR****THE SOUTH CAROLINA OFFICE OF REGULATORY STAFF****DOCKET NO. 2015-103-E****IN RE: PETITION OF SOUTH CAROLINA ELECTRIC & GAS COMPANY****FOR UPDATES AND REVISIONS TO THE CAPITAL COST SCHEDULE****AND SCHEDULES RELATED TO THE CONSTRUCTION OF A NUCLEAR****BASE LOAD GENERATION FACILITY AT JENKINSVILLE, SOUTH****CAROLINA****Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND OCCUPATION.**

A. My name is Anthony James. My business address is 1401 Main Street, Suite 900, Columbia, South Carolina 29201. I am employed by the State of South Carolina as the Director of New Nuclear Development for the Office of Regulatory Staff ("ORS").

Q. PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

A. I hold a Bachelor's Degree in Engineering and a Master's Degree in Earth and Environmental Resources Management from the University of South Carolina. I am a Professional Engineer registered in the State of South Carolina. I have been employed as a Project Engineer at environmental engineering consulting firms and at the South Carolina Department of Health and Environmental Control ("DHEC"). I joined DHEC in 1991 and was promoted from Project Engineer to Program Manager in 1995. As

1 Program Manager in the Bureau of Water, I was responsible for coordinating DHEC's
2 statewide wastewater compliance efforts. In 2004, I joined the ORS Electric Department
3 as a Senior Electric Specialist and was later promoted to Associate Program Manager.
4 As a member of the Electric Department my responsibilities focused on testifying on
5 various filings by investor-owned utilities, serving as the lead contact for renewable
6 energy activities and implementing management objectives. In 2012, I was promoted to
7 Deputy Director of the Electric and Natural Gas Division. As Deputy Director, my
8 responsibilities grew to include providing general oversight of all activities of the Electric
9 Department as well as the Natural Gas Department and supporting senior management
10 objectives. In 2014, I was promoted to Director of New Nuclear Development to provide
11 oversight of the nuclear construction projects in South Carolina. Collectively, I have
12 more than twenty-five years of experience as an environmental engineer in regulatory
13 compliance.

14 **Q. HAVE YOU TESTIFIED BEFORE THE PUBLIC SERVICE COMMISSION OF**
15 **SOUTH CAROLINA ("COMMISSION")?**

16 **A.** Yes. I have testified before the Commission in general base rate cases, a number
17 of fuel clause proceedings, and a previous proceeding to update the schedule and budget
18 for the construction of the new nuclear units in Jenkinsville, SC. I have also been an
19 ORS witness in proceedings regarding renewable energy resources, specifically, net
20 metering programs and smart grid standards. I have also provided updates to the
21 Commission via allowable ex parte briefings.

22 **Q. WHAT IS THE PURPOSE OF YOUR SETTLEMENT TESTIMONY IN THIS**
23 **PROCEEDING?**

1 **A.** The purpose of my settlement testimony is to provide an overview of the South
2 Carolina Electric & Gas Company's (the "Company" or "SCE&G") petition for updates
3 and revisions to the capital cost schedule and schedules related to the construction of a
4 nuclear base load generation facility at Jenkinsville, South Carolina ("Petition"). I
5 summarize ORS's findings regarding SCE&G's Petition and the major components of the
6 settlement agreement ("Settlement") which ORS supports. Lastly, I discuss ORS's
7 regulatory oversight activities with regard to the construction of V.C. Summer Nuclear
8 Station AP1000 Units 2 & 3 (the "Units").

9 **Q. WHAT IS SCE&G REQUESTING IN ITS PETITION?**

10 **A.** Under S.C. Code Ann. § 58-33-270(E)(1) of the Base Load Review Act
11 ("BLRA"), SCE&G is requesting the Commission to modify the construction schedule to
12 reflect new substantial completion dates ("SCDs") of June 19, 2019 and June 16, 2020
13 for Unit 2 and Unit 3, respectively. SCE&G is also requesting an increase to the capital
14 cost estimates by approximately \$698 million (2007 dollars). See Exhibit MAJ-1. The
15 \$698 million is composed of approximately \$453 million in Engineering, Procurement
16 and Construction Contract ("EPC Contract") Costs and \$245 million in Owner's Costs.
17 Of the \$698 million request, \$325 million (which is net of \$86 million in liquidated
18 damages) in EPC Contract Costs and \$214 million in owner's costs are attributed to delay
19 and disputed costs which are discussed further below.

20 **Q. WHAT AUTHORITY GUIDES ORS'S REVIEW OF THE PETITION?**

21 **A.** ORS is guided by the same statute that permits the BLRA modification request,
22 S.C. Code Ann. § 58-33-270(E)(1). It states, "The commission shall grant the relief
23 requested, if after a hearing, the commission finds as to the changes in the schedules,

estimates, findings, or conditions, that the evidence of record justifies a finding that the changes are not the result of imprudence on the part of the utility....” Using this statute, ORS reviews the Company’s request to determine if there has been any imprudence on the part of the utility.

Q. IN REVIEWING THE PETITION AND SUPPORTING DOCUMENTATION, DID ORS FIND THAT SCE&G ACTED IMPRUDENTLY?

A. No, ORS did not. ORS finds that the changes presented in the Petition are not the result of imprudence on the part of the Company; and therefore, in accordance with the BLRA, SCE&G should be granted the relief requested.

Q. PLEASE DESCRIBE ORS’S ACTIVITIES IN RESPONSE TO SCE&G’S PETITION.

A. ORS issued numerous requests for information and reviewed an enormous amount of data to evaluate the Company’s Petition. ORS met frequently with representatives from SCE&G’s construction, business and finance departments to discuss the details of the Petition and the supporting information. ORS also interviewed several Company technical experts to fully understand the particulars related to various components of the Petition.

Q. PLEASE DISCUSS SCE&G’S REQUEST TO MODIFY THE APPROVED CONSTRUCTION SCHEDULE.

A. In August 2014, SCE&G received a preliminary revised construction schedule from Westinghouse Electric Company and Chicago Bridge & Iron (the “Consortium”) which shows the Unit 2 SCD to be delayed until late 2018 or the first half of 2019, and the Unit 3 SCD date to be delayed by approximately one year, thereafter.

SCE&G's Petition includes a revised construction schedule ("Revised Schedule") which shows new SCDs of June 19, 2019 and June 16, 2020 for Unit 2 and Unit 3, respectively. SCE&G refers to this schedule in its Petition as the revised, fully-integrated schedule. SCE&G reported to ORS that the Consortium continues to experience delays in fabrication and delivery of submodules for the Units and that these delays are the primary reason for the Revised Schedule.

Q. HAS SCE&G AGREED TO MODIFY THE GUARANTEED SUBSTANTIAL COMPLETION DATES IN THE EPC CONTRACT?

A. No. SCE&G's rights to liquidated damages from the Consortium are based on the guaranteed SCDs contained in the EPC Contract. The EPC Contract states that guaranteed SCDs can only be revised via a change order. In Docket No. 2012-203-E, SCE&G presented an agreement signed by the Company and the Consortium which became the basis for Change Order #16. The Commission approved the agreement in Order No. 2012-884 resulting in a revised schedule that included new SCDs which would match the guaranteed SCDs in the EPC Contract.

In this case, SCE&G has not agreed to a change order or an agreement supporting revised guaranteed SCDs. Consequently, should the Commission decide to approve the Company's request, the EPC Contract will retain the guaranteed SCDs of March 15, 2017 and May 15, 2018 for Unit 2 and Unit 3, respectively, as approved in Order No. 2012-884. However, as set forth in the Revised Schedule, the project would proceed toward the new SCDs of June 19, 2019 and June 16, 2020 for Unit 2 and Unit 3, respectively. If these new SCDs are approved, the guaranteed SCDs in the EPC Contract would be

different from SCDs in the Commission's order. The tables below show the history of the SCDs for the Units.

Substantial Completion Dates

Unit 2:

Order No. 2009-104(A)	Order No. 2012-884	Docket 2015-103-E
4/1/2016	3/15/2017	6/19/2019

Unit 3:

Order No. 2009-104(A)	Order No. 2012-884	Docket 2015-103-E
1/1/2019	5/15/2018	6/16/2020

Q. DOES THE DIFFERENCE IN GUARANTEED SCDs IN THE EPC CONTRACT AND THE SCDs PRESENTED FOR APPROVAL UNDER THE BLRA IN THIS PETITION CREATE A CONCERN FOR ORS?

A. No. Although the new SCDs will not have the dual-binding impact of the Commission order and the EPC Contract, the Commission orders, as always, will continue to govern ORS's determination of SCE&G's ability to adhere to the approved schedule.

Q. HOW DO THE NEW SCDs RELATE TO THE FEDERAL PRODUCTION TAX CREDITS?

A. SCE&G is eligible to receive approximately \$2.2 billion (\$1.1 billion per unit) in federal production tax credits if the Units are placed in service prior to January 1, 2021. The new SCDs meet that date. However, the 18-month boundary currently approved by the Commission in Order No. 2009-104(A) allows the SCD for Unit 3 to extend beyond January 1, 2021.

Q. PLEASE DISCUSS SCE&G'S REQUEST TO MODIFY THE CAPITAL COST ESTIMATES.

A. The Company is requesting to increase the base project cost by approximately \$698 million (2007 dollars). See Exhibit MAJ-1 for a breakdown of costs in 2007 dollars. The gross construction cost of the Units will increase by approximately \$1.1 billion (future dollars).

Base Project Cost (\$000)

(2007 Dollars)

Order No. 2012-884	Docket 2015-103-E	Change
\$4,548,405	\$5,246,638	\$698,233

Gross Construction Cost (\$000)

(Future Dollars)

Order No. 2012-884	Docket 2015-103-E	Change
\$5,754,565	\$6,826,914	\$1,072,349

Q. PLEASE PROVIDE A BREAKDOWN OF THE INCREASE IN THE BASE PROJECT COST.

A. The increase of approximately \$698 million can be represented by two major cost categories, EPC Contract Costs totaling \$453 million and Owner's Costs totaling \$245 million.

Q. PLEASE PROVIDE A BREAKDOWN OF THE EPC CONTRACT COSTS.

A. With reference to Exhibit MAJ-1, the EPC Contract Cost is approximately \$453 million which consists of \$411 million in delay and other estimated at completion ("EAC") costs (or \$325 million which is net of \$86 million in the projected recovery of liquidated damages from the Consortium); \$72 million in design finalization costs; \$56.5

million in change order costs; and a reduction of \$107,000 for switchyard re-allocation of costs.

Q. WHAT CHANGE ORDERS ARE IN THE PETITION?

A. The Petition includes the following 10 change orders totaling approximately \$56.5 million:

Change Orders (\$000)

1 Plant Layout Security	\$	20,350
2 Cyber Security Upgrades		18,816
3 Schedule Mitigation for Shield Building Panels		12,100
4 Federal Health Care Act (CO #20)		2,182
5 Plant Reference Simulator & S/W (CO #19)		1,100
6 Ovation and Common Q I&C Training Sys.		880
7 Simulator Development System		605
8 ITAAC Maintenance (CO #21)		372
9 Warehouse Fire Security		121
10 Perch Guards (CO #18)		14

Total Costs Due to Change Orders

\$ 56,540

Q. DOES ORS HAVE A RECOMMENDATION REGARDING THE CHANGE ORDERS?

A. Yes, given that several change orders are being negotiated, ORS recommends the Company track and report final change order costs in its quarterly reports filed with the Commission.

Q. PLEASE DISCUSS THE OWNER'S COSTS.

A. With reference to Exhibit MAJ-1, the Owner's Costs increase of approximately \$245 million includes \$214 million in owner's costs associated with the delay and \$31 million in owner's costs not associated with the delay.

1 **Q. PLEASE ELABORATE ON OWNER'S COSTS ASSOCIATED WITH THE**
2 **DELAY.**

3 **A.** Owner's costs associated with the delay is approximately \$214 million which
4 consists of \$125 million in owner's labor cost revisions; \$30 million in owner's risk
5 insurance and workers compensation insurance; \$6.5 million in additional information
6 technology ("IT") costs; \$6 million in facilities cost increases; and \$46 million in other
7 costs.

8 **Q. PLEASE ELABORATE ON OWNER'S COSTS NOT ASSOCIATED WITH THE**
9 **DELAY.**

10 **A.** Owner's costs not associated with the delay is approximately \$31 million which
11 consists of \$7.5 million for 64 additional employees; \$7 million in Nuclear Regulatory
12 Commission ("NRC") fees; \$3.3 million in other IT costs; and \$12.8 million in other
13 costs.

14 **Q. HOW MUCH OF THE PETITION'S TOTAL INCREASE IS RELATED TO**
15 **DELAY AND OTHER DISPUTED COST?**

16 **A.** Approximately \$539 million (or 77%) of the \$698 million increase is related to
17 delay and other disputed costs which includes \$411 million in delay and other EAC costs
18 (or \$325 million which is net of \$86 million in projected recovery of liquidated damages
19 from the Consortium), and \$214 million in owner's costs associated with the delay.

20 **Q. DOES ORS HAVE ANY FINDINGS OR RECOMMENDATIONS?**

21 **A.** Yes. ORS evaluated the Petition with regard to its statutory responsibility to
22 represent the public interest by balancing the (1) concerns of the using and consuming
23 public; (2) economic development and job attraction and retention in South Carolina; and

1 (3) preservation of the financial integrity of the state's public utilities. ORS also
2 evaluated the Petition with regard to Section 58-33-270(E) of the BLRA which states:

3 "The commission shall grant the relief requested if, after a hearing, the
4 commission finds:

5 (1) as to the changes in the schedules, estimates, findings, or
6 conditions, that the evidence of record justifies a finding that
7 the changes are not the result of imprudence on the part of the
8 utility..."

9 ORS met frequently with representatives from SCE&G's construction, business
10 and finance departments to discuss the methodology used to produce the estimates in the
11 Petition. While the Company's owner's costs estimates are well supported, the EAC cost
12 estimates provided by the Consortium, and adjusted by the Company, do not reflect the
13 same level of detail as compared to the owner's costs estimates. Nevertheless, based on
14 ORS's review; SCE&G's in-depth evaluation; and, SCE&G's adoption of the proposed
15 schedule and budget, ORS finds the cost estimates to have sufficient support and provide
16 a reasonable basis to proceed with the Units.

17 As ORS considers its statutory responsibility to represent the public interest in the
18 context of the requirements of Section 58-33-270(E)(1) of the BLRA, ORS finds that the
19 changes presented in the Petition are not the result of imprudence on the part of the
20 Company; and therefore, in accordance with the BLRA, SCE&G should be granted the
21 relief requested.

22 **Q. WHO ARE THE PARTIES TO THE SETTLEMENT?**

A. ORS, SCE&G, and the South Carolina Energy Users Committee (collectively, the “Settling Parties” or the “Parties”) filed the Settlement with the Commission on June 29, 2015. There are two other intervening parties in this docket: CMC Steel South Carolina and the Sierra Club.

Q. WHAT ARE THE MAJOR COMPONENTS OF THE SETTLEMENT?

A. The Parties agree that the Revised Schedule and capital cost estimates presented in the Petition are consistent with the BLRA and should be approved by the Commission.

The Parties also agree that beginning with any revised rates filing made on or after January 1, 2016, and prospectively thereafter until such time as the Units are completed, SCE&G will develop and calculate its revised rates filings using 10.5% as the return on common equity rather than the approved return on common equity of 11%.

Q. DOES ORS SUPPORT THE SETTLEMENT?

A. Yes. ORS supports this Settlement and finds it to be in the public interest. With the reduction of the return on equity from 11% to 10.5%, the total impact is estimated to be approximately \$15 million in savings to ratepayers. ORS respectfully requests that the Commission approve the Settlement.

Q. WHAT ESTABLISHES ORS’S OVERSIGHT RESPONSIBILITIES?

A. Section 58-33-277(B) of the BLRA states that “[t]he Office of Regulatory Staff shall conduct on-going monitoring of the construction of the plant and expenditure of capital through review and audit of the quarterly reports under this article, and shall have the right to inspect the books and records regarding the plant and the physical progress of construction upon reasonable notice to the utility.”

Q. WHAT ARE THE PRIMARY AREAS OF ORS’S OVERSIGHT ACTIVITIES?

1 **A.** ORS monitors the Commission-approved construction schedule and cost
2 estimates. Section 58-33-275(A) of the BLRA states, "...capital costs are prudent utility
3 costs and expenses and are properly included in rates so long as the plant is constructed
4 or is being constructed within the parameters of: (1) the approved construction schedule
5 including contingencies; and (2) the approved capital costs estimates including specified
6 contingencies."

7 **Q. DESCRIBE ORS'S MONITORING OF THE APPROVED SCHEDULE.**

8 **A.** ORS visits the construction site in Jenkinsville at least twice per week to perform
9 on-site reviews of numerous documents that relate to the approved construction schedule.
10 These documents include, but are not limited to: the weekly construction activities report,
11 detailed construction schedules, milestone comparison activity report, milestone schedule
12 recovery plans, major component fabrication status log and meeting minutes. ORS also
13 attends on-site Plan of the Day meetings with "front-line" Project Managers to learn
14 about immediate construction activities and challenges. On a monthly basis, ORS and its
15 consultant meet with SCE&G's on-site lead project representatives to discuss the overall
16 status of the Units and perform an in-depth site tour to observe construction progress.

17 **Q. WHAT OTHER ACTIVITIES DOES ORS PERFORM AS PART OF ITS ON-**
18 **GOING CONSTRUCTION SCHEDULE MONITORING?**

19 **A.** In addition, ORS reviews the Company's required quarterly reports, which,
20 among other things, provide a status of the approved BLRA milestone schedule. The
21 BLRA milestone schedule consists of 146 milestone activities. ORS verifies the status of
22 each milestone activity to ensure the construction activity is in accordance with the

Commission's order. Milestone activities are allowed to be accelerated by up to 24 months or delayed by up to 18 months.

Q. PLEASE DESCRIBE ORS'S MONITORING OF THE APPROVED CAPITAL COST ESTIMATES.

A. ORS compares the capital cost estimates approved by the Commission to the cost estimates in the Company's quarterly reports. This comparison focuses on the 9 major cost categories, which are:

1. Fixed with No Adjustment
2. Firm with Fixed Adjustment A
3. Firm with Fixed Adjustment B
4. Firm with Indexed Adjustment
5. Actual Craft Wages
6. Non-Labor Cost
7. Time & Materials
8. Owner's Costs
9. Transmission Projects

ORS evaluates cost variances which may be due to various project changes (e.g., shifts in work scopes, payment timetables, construction schedule adjustments, change orders, etc.) to determine if the cumulative amount of these changes impact the total approved capital cost of the project (in 2007 dollars).

In a similar fashion, ORS compares the approved project cash flow to the project cash flow in the Company's quarterly reports. This comparison focuses on any impact to annual cash flow requirements.

Lastly, allowance for funds used during construction and escalation rates are evaluated to determine if appropriate rates have been applied.

Q. WHAT OTHER ACTIVITIES DOES ORS PERFORM AS PART OF ITS ONGOING MONITORING OF THE APPROVED CAPITAL COST ESTIMATES?

A. During on-site visits, ORS reviews documents that may impact the project budget. Examples of such documents are contract amendments and change orders. ORS also reviews invoices associated with completed milestone activities to ensure milestone payments are consistent with the EPC Contract milestone payment schedules. In addition, ORS's Audit Division further evaluates the Company's actual project expenditures.

Q. PLEASE ELABORATE ON ORS'S AUDIT DIVISION'S EVALUATIONS.

A. ORS Audit Division personnel conduct regulatory audit procedures on the Company's recorded project expenditures. ORS evaluates the Company's accounting controls over project expenditures and, based on this evaluation, ORS determines the extent to which these controls prevent improper payments.

Q. DOES ORS EXAMINE EACH DISBURSEMENT TO ENSURE THAT THE CONTROLS OVER DISBURSEMENTS ARE BEING PROPERLY APPLIED?

A. No. In accordance with standard audit procedures, ORS examines a sample of expenditures to ensure that the controls are being applied. These samples are selected from the entire population of charges to the construction project account.

Q. PLEASE DESCRIBE THE PROCEDURES PERFORMED TO ENSURE THAT DISBURSEMENTS COMPLY WITH THE INTERNAL CONTROLS.

A. For each disbursement selected, Audit staff examines vendor invoices to ensure: invoices are from valid vendors; charges included are related to the project; the charges are for the correct time period; invoices are mathematically correct; proper approval

signatures are evident on the invoice routing documents; accounts charged are consistent with the nature of the disbursements; and items have been charged to the proper EPC Contract cost category.

Q. WHAT OTHER MONITORING ACTIVITIES DOES ORS PERFORM?

A. ORS technical staff, as well as, senior and executive management, participate in quarterly meetings with SCE&G's executive management. ORS meets quarterly with the Consortium representatives, attends NRC public meetings held near the site, and participates in NRC conference calls to monitor federal licensing activities. Additionally, ORS traveled to fabrication facilities in South Carolina, Virginia, Louisiana, and Florida to monitor the fabrication of major structural modules, shield building panels, mechanical modules and components.

Q. ARE THE RESULTS OF ORS'S OVERSIGHT ACTIVITIES AVAILABLE TO THE PUBLIC?

A. Yes. Subsequent to each quarterly report filed by SCE&G, ORS generates a report which details ORS's review of the Company's quarterly report as well as other notable activities related to the construction of the Units. ORS reports are non-confidential and available at www.regulatorystaff.sc.gov. In addition to ORS's review of SCE&G's quarterly reports, ORS responds to the Company's annual request for revised rates. ORS examines SCE&G's annual revised rates filing which seeks rate recovery to cover the financing of project expenditures. ORS reviews the request and issues a report documenting its findings.

Q. DOES THIS CONCLUDE YOUR SETTLEMENT TESTIMONY?

A. Yes, it does.

SC Office of Regulatory Staff
SCE&G Petition to Modify the Approved Schedule and Budget
for VC Summer Units 2&3
Docket No. 2015-103-E

Revision to Capital Cost Estimates (\$000)
(2007 Dollars)

a. EPC Contract Costs

i. Delay and Other EAC Costs

Delay Costs and Other EAC Costs	\$ 410,328
Less "Liquidated Damages"	(85,525)

Net Delay and Other EAC Costs ^(a)	\$ 324,803
---	-------------------

ii. Design Finalization Costs

Costs Assoc. w/Final Design Finalization	\$ 71,899
--	-----------

Total Design Finalization Costs	\$ 71,899
--	------------------

iii. Costs Due to Change Orders:

1 Plant Layout Security	\$ 20,350
2 Cyber Security Upgrades	18,816
3 Schedule Mitigation for Shield Building Panels	12,100
4 Federal Health Care Act (CO #20)	2,182
5 Plant Reference Simulator & S/W (CO #19)	1,100
6 Ovation and Common Q I&C Training Sys.	880
7 Simulator Development System	605
8 ITAAC Maintenance (CO #21)	372
9 Warehouse Fire Security	121
10 Perch Guards (CO #18)	14

Total Costs Due to Change Orders	\$ 56,540
---	------------------

iv. Switchyard Cost Re-allocation	\$ (107)
--	-----------------

Total EPC Contract Costs	\$ 453,136
---------------------------------	-------------------

b. Owner's Cost Revisions Associated w/Delay

i. Owner's Labor Cost Revisions	\$ 125,279
ii. Owner's Risk Insurance & Workers Comp.	30,101
iii. Additional IT Costs	6,504
iv. Facilities Cost Increases	6,071
v. Other Owner's Costs	46,351

Total Owner's Cost Assoc. w/Delay ^(b)	\$ 214,307
---	-------------------

c. Owner's Cost Increases Not Assoc. w/Delay

i. Additional 64 Employees	\$ 7,535
ii. NRC Fees	7,094
iii. Other IT Costs	3,309
iv. Other Costs	12,851

Total Owner's Cost Increases Not Assoc. w/Delay	\$ 30,789
--	------------------

Total Owner's Cost Increase	\$ 245,096
------------------------------------	-------------------

Total Delay and Disputed Costs ^{(a)+(b)}	\$ 539,110
--	-------------------

Total Revision to Cost Forecast	\$ 698,233
--	-------------------

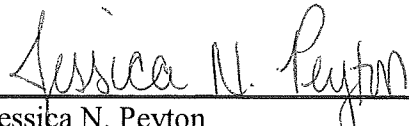
Note: Totals may not add due to rounding

BEFORE
THE PUBLIC SERVICE COMMISSION
OF SOUTH CAROLINA
DOCKET NO. 2015-103-E

IN RE: Petition of South Carolina Electric & Gas)
 Company for Updates and Revisions to the Capital) **CERTIFICATE**
 Cost Schedule and Schedules Related to the) **OF SERVICE**
 Construction of a Nuclear Base Load Generation)
 Facility at Jenkinsville, South Carolina)

This is to certify that I, Jessica N. Peyton, have this date served one (1) copy of the **SETTLEMENT TESTIMONY & EXHIBIT OF M. ANTHONY JAMES, P.E.** in the above-referenced matter to the person(s) named below by causing said copy to be deposited in the United States Postal Service, first class postage prepaid and affixed thereto, and addressed as shown below:

[PLEASE FIND THE LIST OF ALL PARTIES SERVED ON THE FOLLOWING PAGE]



Jessica N. Peyton

June 29, 2015
Columbia, South Carolina

Representing South Carolina Electric & Gas Company

Belton T. Zeigler, Esquire
Womble Carlyle Sandridge & Rice, LLP
1727 Hampton Street
Columbia, SC 29201

Matthew W. Gissendanner, Esquire
K. Chad Burgess, Esquire
South Carolina Electric & Gas Company
220 Operation Way - MC C222
Cayce, SC 29033-3701

Representing CMC Steel South Carolina

Charles L.A. Terreni, Esquire
Terreni Law Firm, LLC
1508 Lady Street
Columbia, SC 29201

Damon E. Xenopoulos, Esquire
Stone Mattheis Xenopoulos & Brew, PC
1025 Thomas Jefferson Street, NW
8th Floor - West Tower
Washington, DC 20007

Representing Sierra Club

Robert Guild, Esquire
Robert Guild - Attorney at Law
314 Pall Mall Street
Columbia, SC 29201

Representing South Carolina Energy Users Committee

Scott Elliott, Esquire
Elliott & Elliott, P.A.
1508 Lady Street
Columbia, SC 29201